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The Students of Worcester Polytechnic Institute

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# TECH NEWS

VOL. 22

WORCESTER, MASS., JAN. 13, 1931

NO. 12

## COSMOPOLITAN CLUB IS GUEST OF PRES. EARLE AT DINNER

Mr. Claude K. Scheifley Gives Travel Talk on His Experiences in Europe Last Summer

A very successful gathering of the Cosmopolitan Club was held last Wednesday evening at the home of President Earle. In the early part of the evening a fine dinner was served which was enjoyed by all. The group then retired to the library to smoke and talk for about an hour while more members were arriving. Mr. C. K. Scheifley, the speaker of the evening, then delivered a very interesting travel talk based on his experiences last summer in making a tour of Europe for the first time.

Mr. S. Q. W. Chin, president of the club, opened the formal meeting by expressing his delight on seeing such a large number present and thanking President and Mrs. Earle for their fine reception to the club. Mr. Chin then proceeded to introduce Mr. Scheifley, who is an instructor in the language department of the Institute, a native of Pennsylvania and a recent graduate of the University of that state.

Mr. Scheifley's trip was a guided tour of the most interesting spots in Europe, which he regards as sort of a survey visit to guide him in planning future visits. Rather than large cities as Paris and Munich, Mr. Scheifley found that the smaller places provided the greatest pleasure, especially the district around the famous Swiss lakes. The feeling towards American tourists was strongest in France where the people openly expressed their contempt. Very few of the French can speak German and make little effort to understand English when spoken by tourists. Touring in Germany and Italy, which countries have recently been drawn together by their mutual dissatisfaction with the Versailles treaty, was considerably easier. Mr. Scheifley related instances of how his knowledge of German helped him getting about Italy in contrast to the difficulties he encountered in France. He also forwarded several possible reasons for the ill-feeling in France and presented examples of the abominable manners

(Continued on Page 6, Col. 1)

## NEWMAN CLUB WILL HOLD REGULAR MEETING

Pres. Earle to Speak

At the regular January meeting of the Newman Club, Tuesday evening, the members will have the pleasure of hearing an address by President Earle. Each year, the Newman Club has been fortunate in having President Earle speak at one of the meetings. This is one of the most popular meetings of the year and as such, a large attendance is desired. Non-members of the club of Catholic faith are invited to attend meetings regularly. This meeting will be held at Sanford Riley Hall at 6.30 on Tuesday evening, Jan. 13.

Several matters of business will be taken up at this meeting. Among them are the plans for the Newman Club dance. This year the annual Newman Club dance will be held at the Hotel Bancroft on the evening of February 13.

## RICHARD A. BETH, '27 AWARDED FELLOWSHIP

Is in Germany at Present

Richard A. Beth, who graduated from the Institute with the class of 1927, has been awarded a fellowship by the German Alexander von Humboldt foundation, which will enable the former Tech student to continue his work on advanced mathematical investigation at the University of Frankfurt-on-Mein.

Dick Beth was a very prominent man here at Tech, having been honored with membership to Tau Beta Pi and Sigma Xi. He was also editor-in-chief of the "Peddler" and the TECH NEWS.

Following his graduation from the Institute, Beth served a year as an instructor in the physics department. The following year he went to Germany to complete his graduate work as an American-German exchange fellow in physics.

Beth hopes to complete his investigations next summer and intends to return to the United States early in September.

## TECH ALUMNUS SAILS FOR CHINA

Ray Hall, '07, Takes Up Duties in China

WHILE AT TECH, HALL WAS  
PROMINENT IN ATHLETICS AND  
Y. M. C. A.

Raymond S. Hall, who has been home on furlough for the past year, and with his family has made his home here in Worcester at 23 Princeton street, intends to return to his duties at Tienstin, China, where he is advisory secretary to the Y. M. C. A. He plans to sail from Los Angeles for Shanghai with his wife and three children aboard the S. S. President Lincoln of the Dollar Line on January 26. Mr. Hall and his family left Worcester the day before Christmas by motor to Los Angeles.

Mr. Hall, who graduated from the Institute with the class of 1907, began his Y. M. C. A. work while here at the Institute. He was an active worker in the Tech "Y" throughout his course at Tech. He was also a member of the Tech cross country team and in his junior year was a member of the Athletic Association. Since graduating from W. P. I., he has always kept up his work and interest in the Y. M. C. A., being appointed advisory executive secretary of the Tienstin, China, Y. M. C. A.

While on his furlough Mr. Hall has taken up advanced work at Columbia University and Union Theological Sem-

(Continued on Page 2, Col. 5)

## CALENDAR

### TUESDAY, JAN. 13—

9.50 A. M.—Chapel Services.  
Dr. L. L. Atwood.  
11.50 A. M.—Senior Class meeting. M. E. Lecture Room.  
12.00 M.—Y. M. C. A. Cabinet meeting. Y. Offices.  
5.00 P. M.—Interfraternity Basketball. T. X. vs. S. A. E.; P. S. K. vs. P. G. D.  
6.30 P. M.—Newman Club meeting. S. R. Hall.  
7.30 P. M.—Aero Club meeting.  
8.00 P. M.—Sigma Xi meeting. S. R. Hall.

### WEDNESDAY, JAN. 14—

9.50 A. M.—Chapel Services.  
Mr. Paul Swan.  
4.00 P. M. TECH NEWS meeting.  
5.00 P. M.—Interfraternity Basketball. T. U. O. vs. S. O. P.; A. T. O. vs. L. X. A.  
7.30 P. M.—Knights of the Road meeting. M. E. Library.

### THURSDAY, JAN. 15—

9.50 A. M.—Chapel Services.  
Rev. C. E. Adams.  
5.00 P. M.—Interfraternity Basketball. T. X. vs. P. G. D.; P. S. K. vs. S. A.

### FRIDAY, JAN. 16—

9.50 A. M.—Chapel Services.  
Rev. C. E. Adams.  
5.00 P. M.—Interfraternity Basketball. P. G. D. vs. L. X. A.; S. A. E. vs. S. O. P.

### SATURDAY, JAN. 17—

3.00 P. M.—Swimming Meet.  
Fuller Pool. Tech vs. Amherst.  
7.15 P. M.—Tech Seconds vs. North High.  
8.15 P. M.—Tech Varsity vs. Trinity.

### MONDAY, JAN. 19—

9.50 A. M.—Chapel Services.  
Prof. Z. W. Coombs.  
4.15 P. M.—NEWS assignments. B-19.

## EVENING SCHOOL TO BE BEGUN IN AERONAUTICS

Professors to Start New Class

A new class in the evening school of aeronautics conducted by Prof. Kenneth C. Merriam, John H. Whenman, Arthur J. Staples and Donald R. Simonds, members of the mechanical engineering staff of the Worcester Polytechnic Institute, will be organized early in February and continue through the current college year. The school, although using the aeronautics laboratories, wind tunnel and materials testing apparatus of the Institute, is otherwise independent of the college, and is open to young men who have had a high school education or its equivalent. Professor Merriam gives the instruction in aerodynamics, and Mr. Staples in air-craft engines, while Mr. Whenman teaches meteorology, navigation and air-commerce regulations. Mr. Simonds is business manager. Application for admission to the new class should be made before February 1. A class now in progress was organized about November 1, and will conclude in May.

Professor Merriam in his work at the Institute has immediate supervision of the aeronautics division of the department

(Continued on Page 5, Col. 5)

## LIEUT. COMMANDER CHARLES E. ROSENDAHL IS FULLER LECTURER

Lecture Which Was Accompanied by Slides Was Held in Evening at Alumni Gym

## SIGMA XI WILL MEET JANUARY 13 IN DORM

Program Includes Two Speakers

The next meeting of the Society of Sigma Xi will be held in Sanford Riley Hall lounge, Tuesday, January 13, at eight o'clock p. m. Dr. F. R. Butler will give a report of the thirty-first convention of the society very recently held in Cleveland. Dr. Butler attended as a delegate from the Worcester Tech chapter, and also attended as a delegate from the Institute the convention of the American Association for the Advancement of Science, held in Cleveland at the same time.

The speaker will be Professor Gleason MacCullough of the Department of Mechanical Engineering, who will speak on the subject, "The Torsion Problem—Where Mathematical Analysis Ends Modern Experimental Analysis Begins." He will trace the history of this famous problem in elasticity, stating the solution given by St. Venant. He will describe the development of the soap film method of Prandtl, and will mention hydrodynamic analogies. Refreshments will be served after the lecture.

## E. I. A. A. MEET WILL BE HELD AT TECH FIELD

Will Also Hold Indoor Meet

For the sixth consecutive season Worcester Tech has been chosen for the annual Eastern Intercollegiate track meet which, on May 16, will bring to Alumni Field the followers of the cinder path from 12 and possibly 13 of New England's smaller colleges, according to results of a mail vote which were announced last night by Prof. Percy R. Carpenter, head of the Tech Department of Physical Education.

The Association now is composed of twelve colleges, Amherst, Connecticut Aggie, Northwestern, Norwich, Rhode Island State, Mass. Aggie, Springfield, Trinity, Middlebury, Union, Vermont State and Worcester Tech. Tufts recently withdrew from the union and reduced the number of college members by one. Providence College has already entered a petition for membership which will be acted on at the next meeting on February 28, and indications are that the association undoubtedly will be composed of thirteen members again.

The E. I. A. A. plans to hold its first indoor track meet at Amherst on February 28, which will mark a departure from the usual order which has in the past consisted of only an outdoor meet. Professor Carpenter, president of the association, has appointed Al Lumley, Amherst, chairman of the committee in charge of the indoor meet, with L. L. Derby, M. A. C., and J. L. Rothecker, Springfield, assisting.

Last year the eastern association adopted a Freshman rule which will keep the cubs from varsity competition

(Continued on Page 2, Col. 5)

## LARGE AUDIENCE ATTENDS LECTURE— SPEAKER RELATES HIS EXPERIENCES TO AUDIENCE

Last Friday evening, January 9, the fourth and possibly the best Fuller lecture of the season was given. A Fuller lecture in the evening is a little out of the ordinary as they are generally given from eleven o'clock until noon, but because of the length of the talk and the fact that the speaker was unable to visit the "Hill" at any other time, it was necessary to get away from customary procedure. No one could have asked for a more enjoyable way to spend an evening. The speaker is to be complimented on the interesting way in which he presented a subject which might have been very boring. The large audience could have listened attentively as long as the speaker's voice held out.

The lecture opened with the singing of America followed by a selection by the members of the Glee Club. President Earle was then called upon to introduce the speaker. Before the introduction, Admiral Earle spoke of the fine spirit the members of the basketball team showed at the Brown game, where, due to difficulties in transportation, they were unable to be at their best, yet they worked as if there were no odds against them.

He then gave some statistics pertaining to aviation. He stated that we had only one large airship. This is the Los Angeles or ZR3, capable of sixty-three knots per hour. It has crossed the Atlantic seven times and the Pacific ocean once. There are twenty lighter than air crafts in operation in this country at the present time. There is now being erected in Akron, Ohio, the ZRS4 which will be the largest airship in the world. This will be followed shortly by the ZRS5.

Lieut. Comdr. Charles E. Rosendahl was born in Chicago but spent most of his early life in Texas. He graduated from the Naval Academy with the class of 1914 and was connected with destroyers and cruisers until he went into the lighter than air game. Now he probably knows more about this branch of aviation than any other one man in this country. Lieut. Comdr. Rosendahl, U. S. N., came up from Washington just for the benefit of those attached to our engineering school.

Lieut. Comdr. Rosendahl, U. S. N., began his talk by saying lighter than air aviation was a phase of engineering and therefore he was glad to be able to talk to a group of engineering students.

At the present time this phase of aviation is under the Navy Department by mutual consent with the War Department to save the expense of both branches doing the same research work and performing the same experiments. As fast as the army needs lighter than air ships the navy can furnish them.

The research being done by our Navy Department will be a great help commercially. The large ships will

(Continued on Page 6, Col. 2)



## TECH NEWS

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## TECH-CLARK GAME

There is no doubt that Worcester Tech has spirit, after the Clark-Worcester game on Saturday night. Without extra effort on the part of anyone, the College rallied behind their basketball team, urging them on to victory over these ancient foes from Main South. It is natural enough that two colleges in the same city should have feelings of rivalry and that it should be shown in the ways that it is. People who have attended these games back some ten or more years feel that they have improved a great deal in the sportsman's spirit on both sides. The schools no longer get up in a body and threaten the other, as has been done in the past. Of course there are things that are natural to such games that can not be all overcome, but it is certainly true that the rivalry has become more sportsmanlike in the last few years.

We of the NEWS think that the College may take heart and feel that the old spirit has not left the Hill entirely, when the students will so quickly rise up in defense of one of their own men. Perhaps it is not the right thing to do, but it does show that that old spirit is still alive. Much praise is due the two cheer leaders in their ability to hold the crowd when the feeling was running so high.

The basketball team showed that get up and get, to go right into the game and get a lead and hold it throughout the game. It gives the student body a feeling of hope and also it is far easier to keep a lead than it is to overtake a lead from the other side. Not a word of criticism has been heard of the Saturday night game.

The NEWS feels that the College should be proud of the Band that helped so much at the game. Everyone that has taken part in that activity should feel that they are doing a great deal to make the games a success. The band in its own way helped to hold the crowd that was naturally keyed up, in taking out those long periods of waiting when it is so easy to jeer instead of cheer.

Tech—keep the good work going throughout the month.

## CHAPEL ADDRESS

The first Chapel address of the New Year, following Christmas recess, was the occasion of an inspiring address by President Ralph Earle who extended New Year greetings in the form of a message of cheer and encouragement to the student body.

"Of course you can have a very Happy New Year, everyone of you, if you make up your mind to make it so. First I want to say that I hope each of you who had to take a condition examination last Saturday, passed it successfully. I also feel that the experience of taking a condition examination ought to instill into your minds and hearts the resolve never to have to take another condition examination. Of course, sometimes sickness, or circumstances over which we have no control, will make such examinations necessary, but make up your minds, not to have to take examinations, and then you will enjoy college. Thus when you look back upon college life, if you do, you will look back upon a very happy life.

"It is customary at the beginning of a New Year not to look backward but only forward. However, sometimes, in order to look forward, and form our ideals and plans for the future, we may have to look backwards in order to profit by what has happened to other people.

"Perhaps a glance back into history is not amiss. This morning I just happened to notice that on this date in 1608, Captain John Smith was captured by the Indians. Now, apparently, for him, his whole life, his visions, and everything he stood for ended right there. He might well have given up right then and there. What he did do, on the contrary, was to keep right ahead doing what he had set out to do. I want you, young gentlemen, to feel that an occasional set-back isn't the final say in anything. Now, as young engineers, you have heard that we all have great responsibilities in the world, that we have all got to meet them sooner or later, and I hope you will meet them in the right way. I shall give you an idea of what the Chinese think about this, by quoting to you from a poem written in the second century B. C. reading: 'Two facts still remain unchallenged. First, the summit on the mountain of perfected civilization is still as remote, unassailed, and illusive as is the shining peak of Mount Everest. Men have tried this, many, and they should advise as to what vehicles they have found as an effective means of progression. Second. It is all too plain that whether or not man be half God, he is certainly half brute, and that civilization, in the long last, is merely the instrument by which man's

higher self develops and establishes control over his lower self and his animal instincts. Is civilization anything, indeed, but control, control of the lower by the higher, control of matter by mind, control brought about by different means? Chinese art expresses this in one of their most popular themes: one drawn from the countryside. A tiny boy is shown riding a water buffalo, certainly one of the most powerful and often one of the most violent creatures in existence. The physical strength of the child is negligible but his spiritual force enables him to dominate the beast.

"Engineers, then, control man and his destinies in an ethical way, derived from a deep sense of moral obligation. We must keep that in mind, not only are we making mechanical things, electrical things, but we must keep in mind the fact that we are responsible for civilization, and we must exercise control over ourselves first, and then over others in order that we may some day reach the millennium. We, then, must stand for everything that is best in our work, and combat all the forces of evil we see adrift without control, in the world, today.

"One of the best examples I know of showing how a man by controlling himself, has become known as one of the leading characters of time is Marshall Joffre, known as one of our strong characters. It is a record of history that he is as solid as a rock, and he symbolizes to France the rock on which Germany foundered. It may not have been all his doings, but nevertheless, he was there in control of the situation, and he will go down in history as the man who met and conquered the Germans. He was drawn, as you know, from the people, and he was one of many children, eleven I think, in his family. He won his own way into, and through, the Ecole Polytechnique. That is one way in which he ties up with you, gentlemen, he was a graduate of a school of technology, the same as you are all going to be, and he found that he had to struggle to get through. He exercised the qualities he gained there, constantly, and I believe that if you all take some of these characters as examples, you will master your work here, and will so live that in the years to come, you will find that you have done what we all wish for you this New Year, and always,—all the most desirable things in life, for each and everyone of you."

## TECH ALUMNUS SAILS

(Continued from Page 1, Col. 2)

inary besides doing considerable public speaking in connection with the income production department of the National Council of the Y. M. C. A. He is bringing back to the "Y" Men's Club of Tienstin the fraternal greeting of the "Y" Men's Club of Worcester.

## EVENING SCHOOL

(Continued from Page 1, Col. 3)

ment of mechanical engineering, in which division the other instructors in the evening school are his associates. Together they also conducted the ground school classes of the Curtiss Flying Service at the Institute last year.

## E. I. A. A. MEET

(Continued from Page 1, Col. 4)

as is the case in the New England Intercollegiate.

The officers of the Eastern Intercollegiate Athletic Council Association for the year are Prof. Percy R. Carpenter, Worcester Tech, president; F. B. Tootell, R. I. State, and P. D. Baker, Norwich University, vice presidents, and L. L. Derby, M. A. C., secretary-treasurer.

## STEPPING INTO A MODERN WORLD



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save 25,000 hours

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## ENGINEERS CONQUER CLARK IN ROUGH BUT SPEEDY CONTEST ON LOCAL FLOOR—FINAL SCORE SHOWS TECH 31, CLARK 26

### PURRINGTON, TECH FORWARD, IS INDIVIDUAL STAR OF CONTEST

Rival Centers, Smith and Bowes, Also Star Offensively—Asp and Brierly Feature in Defense Work

#### MANY FOULS COMMITTED IN CONTEST—FITCHBURG SWAMPS SECONDS IN A LOOSELY PLAYED GAME

Again the Tech hoopsters thwarted the Clark attempt at a basketball victory over the Boynton Hill quintet. An enormous crowd jammed the gymnasium long before the main game was played and was not disappointed as thrills piled up on thrills and left the entire audience breathless. Few times throughout the entire forty minutes of actual play was either team in the lead by more than two or three points and several times the lead changed hands by a single point, but in the end Bill Asp and his mates forged to the front and held a five point margin till the gun ended the game.

The game throughout was filled with brilliant defensive play, thrilling passes down the floor and fast charging breaks which usually ended with two points added to the score of one of the teams. The game was so fast and closely contested that numerous fouls were called as the players over guarded or charged each other in desperate attempts to gain possession of the ball.

The crowd was brought to its feet time and time again as Russ Purrington, with the eyes of a hawk broke up play after play and flipped in basket after basket to add to the Tech score and Captain Bill Asp and Johnny Smith, playing a rugged defensive game, stopped threatening Clark rallies and turned them into Tech counters. Johnny Smith was especially effective, adding ten points to the Tech total, four via the foul line and six double deckers.

During the course of the game a total of 37 fouls was called; Clark ran into 20 of these infractions and Tech the remaining 17. The inability of Clarke to sink these robbed them of the chance to win the game as they made only eight of their seventeen fouls registered.

As the game started Tech lost no time in gaining a lead as Purrington broke the ice with a free try and immediately followed it up with a double counter. Clark sank a long one and Johnny Smith swished two through in rapid succession from the side of the court, giving Tech a 7-2 lead.

The Clark team seemed to get the range and rapidly brought the score up to 7-6 when Don Kaplan and Mal Bowes scored from the charity marker and Bill Brierly followed up with a pretty basket from the floor.

At this time Clark called time out to find an adequate defense for the speedy, shifty Purrington and the cool shooting Johnny Smith. This defen-

sive proved worthless as Russ scored two more points immediately after the whistle blew, resuming play. Clark seemed unable to penetrate the powerful Tech defense and so resorted to long range shots with much better results and gradually cut down the Tech lead till at the end of the first half the margin was only 14-13 in our favor.

Purrington again opened the scoring in the second half when he intercepted one of Brierly's passes and dribbled unmolested down the floor to score on an easy pop shot. Bowes cut down the lead when he neatly tossed in a long one and O'Toole put Clark in the lead for the first time during the game when he sank a pretty one-handed shot to make the score 17-16.

Gartrell made Clark's lead of short duration as he broke through a mass of Clark players to send the leather through the net without a ripple.

Clark again called time out to bolster up their defense. Kaplan scored a pop shot immediately after play resumed but missed a chance to tie the score when his foul shot failed to drop in. Clark was not to be disappointed long, however, as O'Toole scored from under the basket, bringing Clark into the lead, 23-22. Johnny Smith brought the Tech stands into a frenzied bedlam of noise as he calmly sank two shots from the charity marker and again put the Boynton Hill quintet in front, 24-23. From this point on the Crimson and Gray forged steadily ahead never again to be headed.

Purrington was left unguarded for a moment underneath the basket and scored on a beautiful pass from Bill Asp. Johnny Smith increased the lead when he sank a free try, Johnny Smith and Brierly tangled up in a corner and both were awarded a free try which they promptly converted into points.

Asp was removed toward the end of the game via the four foul route but the game was aging fast and his mates held tightly to their lead like a quintet of Scotchmen and as the gun ended the game the Engineers were on the long end of a 31-26 count.

Purrington led the individual scorers with five goals from the floor and four goals from the foul line. Johnny Smith tallied ten points of the Tech total as he collected four free tries and three double-deckers from the floor, Mal Bowes was the high scorer for Clark, garnering ten of his team's twenty-eight points.

Bill Cullen did not seem to have his shooting eye with him Saturday night as many of his shots just rimmed the basket but would not drop in. As it was he tallied three of the team's points. Bill Asp and Irv Gartrell each sank a long shot besides displaying

sterling work on the defensive. The entire team showed a remarkably strong defense and most of the Clark shots were from long range.

TECH			
	fg	fp	tp
Purrington lf	5	4	14
Cullen rf	1	1	3
Smith c	3	4	10
Gartrell lg	1	0	2
Walker lg	0	0	0
Asp rg	1	0	2
Leach rg	0	0	0
Totals	11	9	31

CLARK			
	fg	fp	tp
O'Toole lf	3	0	6
Kaplan rf	2	1	5
Bowes c	3	4	10
Brierly lg	1	2	4
O'Connor rg	0	0	0
French rg	0	1	1
Totals	9	8	26

Referee, Haughey. Time, 20-minute halves.

#### FITCHBURG—SECONDS GAME

In the preliminary to the Tech-Clark game, the Tech Seconds were defeated by the Fitchburg High team. The high school team, scoring almost at will, showed a marked superiority over the Seconds and the final score, 50-18, shows how much was this superiority. The second team defense was easily solved by the Fitchburg team, while the Tech team did not seem to be able to get possession of the ball long enough to do any great damage to the Fitchburg team.

However, this defeat was not so surprising as Fitchburg high had previously defeated the Clark first team in a practice game. This team, which is coached by Amiot, who is also coach of Clark, is considered one of the best teams in the state, being rated as equal to a number of the small college teams in the vicinity.

The game was marked by the rapid passing game of the winners as well as their fast floor work and accurate shooting.

The individual high scorer was the Fitchburg center, Whelan, who got away with eleven floor baskets, besides two free tries for a total of twenty-four points, while Allan, a guard, was second high scorer for the winners with three floor baskets and a free try for a total of seven points; while Fellows, besides starring on the offense, gathered six points. For the Seconds, Bob Meeker gathered seven points, while Sonny Norton, besides being all over the floor on the defense, garnered six points. The summary:

FITCHBURG HIGH			
	fg	fp	tp
Nelson rf	0	0	0
Lahti rf	1	0	2
Hagelberg rf	2	0	4
Fellows rf	2	2	6
Koski rf	0	0	0
Whelan c	11	2	24
Krock c	1	0	2
Allan lg	3	1	7
Lahtinen rg	0	0	0
Fillback rg	1	3	5

Blake rg	0	0	0
Totals	21	8	50
TECH SECONDS			
	fg	fp	tp
Lyman lf	0	0	0
Henrickson lf	1	0	2
Meeker rf	0	0	0
Totals	8	2	18

Norton rf	3	0	6
Driscoll c	0	0	0
Meeker c	3	1	7
Pihl lg	0	0	0
Merrill lg	0	0	0
Dwinnell rg	1	1	3
Totals	8	2	18

### He was staking his future on those castings

Even though it was July 4 and a holiday, R. T. Crane, then a young man, was so eager to see his tiny new foundry in actual operation that he lighted the furnace, filled the crucible with metal, and poured his first castings. When the moulds were cool, and the first Crane products ready, he studied and cleaned and polished with inexhaustible care.

The little foundry has grown into the 347 acres of Crane manufacturing plants. Progress has brought rows of giant electric furnaces to take the place of his first crude one. The lightning rod couplings that he made on that day in 1855 have been expanded into a line of 33,000 items, meeting every modern valve and fitting need of the world's industries. But to this day, the example the founder set of intense personal interest and pride and care for the quality of each product remains a distinguishing mark of the Crane organization.

Just as the founder on that first day felt that his future rested with the quality of those couplings, Crane men are trained to feel that their company's reputation rests upon the quality of each valve and fitting they turn out.

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Valve Fitting  
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## SPORTS

## TECH SWIMMERS STILL WIN

## SPORTS

WILLIAMS COLLEGE SECOND  
VICTIMS OF TECH SWIMMERSJohn Tinker Figures in Three First Places---New Record is Set in  
50 Yard DashRELAY RACE DETERMINES VIC-  
TORY---STRONG AMHERST TEAM  
WILL BE MET HERE THIS WEEK

In its second swimming meet of the year, Tech gained a victory over Williams College at Williamstown by a 45-32 score. The meet was close throughout and the final score was only decided by the last event, the 220-yard relay, which was won by the Tech team consisting of Holcombe, Perry, Osipowich and Tinker. Johnny Tinker was the individual high scorer of the evening, winning both the quarter mile and the 100-yard dash, besides swimming anchor on the winning freestyle relay team, while Osipowich besides winning the 300-yard medley, was on both the winning medley and freestyle relay teams to round out a good day's scoring.

Swayze of Williams broke one pool record in the 50-yard dash to barely beat out Captain Holcombe of Tech in the fast time of 25 seconds. Ken Perry came in third in this race. In the 300-yard medley which Johnny Osipowich won, Fitz of Tech was forced to follow Bird of Williams who beat him out for second. Although Johnny Tinker got his first place in the quarter mile, Tech was forced to give Williams second and third place as Whitbeck and Feddler beat the other Tech man to the finish. In the diving Williams was able to take both first and second places as Runo and Luplian both beat Joe Fogg who took third. However, to even matters, Tech took both the first and second in the 150-yard backstroke as Red Driscoll and Paul Fitz beat Kerr of Williams to the finish. In the 100-yard freestyle where Johnny Tinker took his second first, Tech was again forced to give up second place as Swayze of Williams beat out Ken Perry for this place.

The 200-yard breaststroke again gave Williams the first two places as Stewart and Gilfillan were followed by Emerson of Tech to the finish. The score before the final event, the relay, was 37-32 in favor of Tech, leaving this event to decide the final score. However, Tech came through with a win in this, making the team ahead in the final reckoning.

The final statistics show that whereas Tech took the majority of the firsts, taking five out of the nine, Williams took enough seconds to make the scoring close. Williams took five of the seven seconds and two of the seven third places, showing that Tech won only because of the two winning relays.

The summary:

300-yard medley relay—Driscoll, Emerson and Osipowich of W. P. I., 1st; Kerr, Stewart and Beatty of Williams, 2nd. Time, 2:26 1-10.

Bring your week-end Guest to

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Worcester's Best  
Restaurant

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Tech Barber Shop

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**The Fancy Barber Shop**

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GOOD CUTTING

NO LONG WAITS

SIX BARBERS

INTERFRATERNITY  
COURT RESULTSThree Teams in Race are as yet  
UndefeatedTEAMS THIS YEAR ARE STRONG  
—INTERESTING GAMES TO BE  
PLAYED THIS WEEK

Starting Jan. 5, the third of the interfraternity sport schedules was begun. The basketball games are played each night at five, two fraternities playing each night. The games consist of fifteen minute halves. Up until Jan. 8, three fraternities, Alpha Tau Omega, Lambda Chi Alpha, and Theta Upsilon Omega have won two and lost no games. Theta Chi won one and lost one game. The other fraternities lost both games scheduled. The results for the first week are as follows:

BROWN EKES OUT WIN OVER  
TECH AFTER THRILLING GAMEPurrington, Cullen and Smith Star as Team Loses in Close Game  
While Caulkins Shines for Brown

Jan. 5—A. T. O. 23
P. G. D. 4
T. U. O. 28
S. A. E. 16
Jan. 6—T. X. 20
S. O. P. 14
P. S. K. 8
L. X. A. 2
Jan. 7—T. U. O. 36
P. G. D. 13
A. T. O. 26
S. A. E. 14
Jan. 8—P. S. K. 19
S. O. P. 15
L. X. A. 17
T. X. 16

TECH TEAM PLAYS UNDER HAND-  
ICAP—BUS BREAKS DOWN ON  
WAY TO GAME HANDICAPPING  
TEAM

The Worcester Tech quintet went down to defeat at the hands of a powerful undefeated Bruin five Thursday evening, after a torrid battle filled with thrills galore. The Brown coach is quoted as saying that the game was one of the greatest uphill battles ever waged against a Brown basketball team.

After a long three hour ride to the Brown gymnasium, on account of bus trouble, the Tech team had to rush into their suits and start the game after a few minutes' practice. With this mental and physical handicap holding back the wearers of the Crimson and Gray, the men from the city founded by Roger Williams, got the jump on the Engineers and in a few minutes the score was Brown 20, Tech 5. The men from the Hill came back strong and at the end of the first half the score was 20-14 in favor of Brown. In the second half, the Tech offensive again stalled and with less than five minutes to play the score was Brown 29, Tech 21. At this point of the game the Engineers unleashed their scoring attack which was just short of victory. Irv Gartrell started things with a long shot from near midcourt swishing the net for a double-decker. Johnny Smith followed up a shot for another two pointer. Bill Asp fouled the Brown captain, Snyder, who boosted Brown's total to thirty. "Smooth" Smith again tallied for Worcester and the score-board read 30-28 with Brown still leading. The game continued at this score for the last two minutes and in the waning seconds remaining to play Caulkers, the Bruin left forward sank a rebound shot to assure victory for the Brown team. Purrington and Smith were the stars for Tech while Captain Snyder and Jack Caulkins were the highlights for the Bruin five.

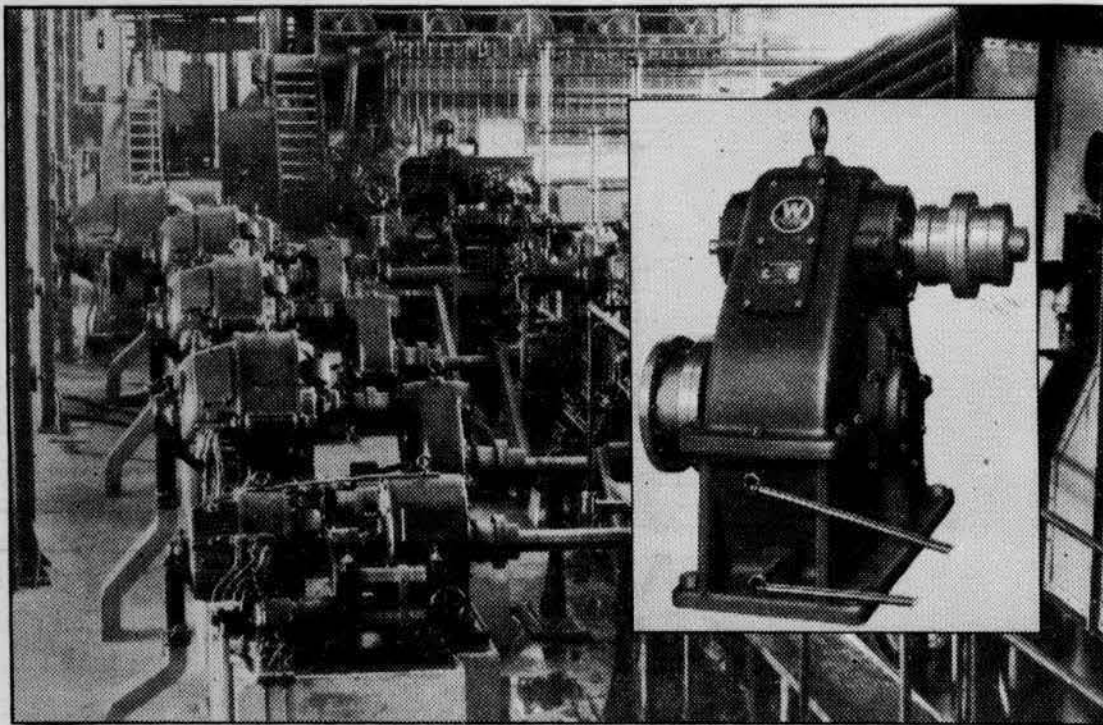
Only for a poor start, Tech might have been the victor. Even in defeat, the men from the Hill scored a victory by showing the Brown fans what a fighting team looks like. Every Tech player is to be commended on the fine showing of spirit and fight that was displayed in the game.

The summary:

BROWN			
	fg	fp	tp
Caulkins lf	5	0	10
Harris lf	0	0	0
Vreeland rf	0	0	0
Snyder rf	5	1	11
Walsh rf	0	0	0
Marsh rf	0	1	1
Skinner c	1	0	2
Sawyer c	1	0	2
Brown c	0	0	0
Schein lg	0	0	0
Hemelwright lg	1	0	2
Tensen lg	0	0	0
Mantell rg	2	0	4
Morey rg	0	0	0
Tellinghast rg	0	0	0

WORCESTER TECH

	fg	fp	tp
Purrington lf	4	1	9
Cullen rf	2	3	7
Smith c	3	2	8
Asp lg	0	0	0
Gartrell rg	2	0	4
Walker rg	0	0	0



## These Timken Bearings Have Run 70 Times the Life of the Average Automobile

The pinion bearings in the 6 Westinghouse-Nuttall gear reduction units at the Washington Pulp and Paper Company have each rolled up the enormous total of over 2,338,000,000 revolutions, and a recent check-up shows that they are good for many millions more.

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The total distance traveled by each of these bearings is the equivalent of driving an automobile more than 3,500,000 miles, whereas the average automobile travels but 50,000 miles during its entire life.

A worthy tribute to Timken stamina! Won't you want this same unequalled endurance in the machinery you design, recommend or buy? The Timken Roller Bearing Company, Canton, Ohio.

# TIMKEN Tapered Roller BEARINGS



## FARMER IN NEED OF NEW FOOD MARKET FOR CROPS

Suggestion Proposed by Dr. W. J. Hale

In the December issue of the "Journal of Industrial & Engineering Chemistry," Dr. William J. Hale, of the Dow Chemical Company, has published an article on the "Farm Situation," which at present confronts this country. Commenting on this article the editors say, "It is a privilege to publish a proposal and a discussion by W. J. Hale which offers suggestions that will be considered revolutionary by some. It is thought-provocate and valuable on that account, if for no other reason. Doctor Hale's views run counter to some others. He may seem to show a far greater interest in the chemical industry than in agriculture, but a more careful analysis of his proposal will not support this view.

"Agriculture wants an increasing non-food market for its products, whether they be primary or secondary yields of the field. Chemical industry in some of its branches demands cheaper and cheaper raw materials for old as well as new products. Why is it not feasible to develop methods for greatly increased yields at no greater total cost per acre on the farm, with a subsequent sale to the chemical industry at a lower price per unit with a greater profit from the whole? It has already been shown that chemical industries using farm products as raw materials must seek out the source of the cheapest cellulose, starches, and sugars. This cheapness is measured for the most part by the costs on the food markets, yet the value as a foodstuff is of no consequence to the industry that converts cornstarch or that ferments a carbohydrate. Unless the industrial fermentation industries can find acceptable raw materials in quantity at lower prices, their difficulty in meeting the competition of the synthetic processes will be increased. We all have confronting us the pointed question—which will survive, the fermentation industry with agricultural raw materials and ferments working at a minimum wage, or those synthetic processes where, in the last analysis, the cost of energy in its various forms is the dominant factor?

## THESES

Again the time of year has come around when the Seniors are beginning to think of their last term at College. One of the outstanding things in this term is the Thesis that is required for graduation. These theses are taken on many and varied subjects both at the college and away from it. Following are the names of Seniors and the list of their chosen subjects:

Charles A. Kennedy and A. F. Townsend are taking as their thesis, "The Investigation of Characteristics of Automobile Carburetors." This thesis is under the direction of Mr. Staples.

Frank T. Green and Herbert A. Stewart have chosen the subject, "Installation and Test of Concrete Venturi Flume." This is under Prof. C. Allen and will be done in Chaffins. The experiment is largely construction.

George Rak and Hrant Tashjian are going to work under the direction of Prof. H. P. Fairfield on "The Cost of Machining Cylindrical Surfaces."

Henry N. Deane and Raymond D. Holcombe are studying manufacturing methods. This thesis is also under Prof. Fairfield's direction.

M. Dexter Gleason and L. Sherman Haskins are reconditioning automobile testing plans. Mr. Staples has the oversight of this subject.

William B. Kenyon and William H. Mill have taken as their thesis, "The Investigation of Characteristics of Friction Testing Machine for Lubricating Oils." Mr. Staples also has the direction of this experiment.

Walker T. Hawley and Ralph Hodgkinson are erecting and testing a new six inch Gould centrifugal pump. Prof. C. Allen has charge of this thesis.

Edward D. Ansdan is investigating some special piezometers for indicating discharge. This is another subject that is being taken up at Chaffins.

William J. Sage and Carl F. Sage are studying "The Wall Effect of Spillway Models."

Daniel P. Dyer and Albert I. Palm are taking as their subject, "The Efficiency of Cutting Metals on Modern High Speed Lathe." This thesis is under the direction of Prof. Fairfield.

Paul H. Fritz and Russell J. Libbey are going to run twenty-four tests of battery of boilers. These tests will

(Continued in Column 5)

## KIND ACT

Last Wednesday night one of the ambitious young Tech men took a walk up to the Nurses' Home to see his best girl from the home town. He may have had a good time but we don't know about that. Well, when he started home he just began to realize what a beautiful night it was. Just a short distance from Lincoln Square, coming down the hill, he heard a peculiar noise. Being of a somewhat suspicious nature he decided to investigate. The noise apparently seemed to be coming from a deep manhole at the edge of the sidewalk. Well, this man doing the investigating was Cy Perkins. He being from Foxboro, could correctly diagnose the source of the noise. The result was that the noise was coming from a poor little kitty splashing around in the dirty water. Perkins, being of a somewhat sympathetic nature decided to see what could be done to help the poor cat. He took off the cover after much struggling and saw that the hole was too deep for him to reach the cat. While standing at the edge of the hole Cy slipped and almost joined the cat. Swimming and splashing beside the cat

was a large rat and it was having as hard a time as the cat. Evidently the cat had somehow gotten into one of the large pipes leading into the sewer while chasing the rat. The chase terminated when the pipe ended and they both dropped into the water. After that they were comrades in the struggle for life.

After replacing the cover Cy went and told the officer on duty at the Square about it. He told Cy to go and tell the sergeant on duty at Station 4 on Grove St. This Cy did and the sergeant notified the officer on that beat about it. The officer could do no more than Cy had done and so finally the rescue squad of the fire department was called. After much fishing around in the muck a very dirty white angora cat was fished out.

Perkins, as well as being a fire fighter, is a good animal saver.

## WILLIAMS-TECH

(Continued from Page 4, Col. 1)  
1st: Swayze (Williams) 2nd: Perry (W. P. I.) 3rd. Time: 60 4-10 secs.  
200-yard breaststroke—Steward (Williams) 1st: Gillfillan (Williams) sec.; Emerson (W. P. I.) 3rd. Time 2:50 2-10.  
200-yard relay — Won by W. P. I.

(Holcombe, Perry, Osipowich and Tinker); Williams (Bixby, Beatty, Pierce and Swayze). Time, 1:43 1-10.

Next week the swimming team meets Amherst here. The Amherst team met M. I. T. Saturday and the times of this contest were slower by several seconds than those of the Williams meet. This means our team should win three tank events in succession.

## THESES

(Continued from Column 2)

be run in plants some twelve or fifteen miles from Worcester.

S. K. Chakravarti is taking a subject which is a review of the literature which is obtainable on testing methods pertaining to internal combustion engine.

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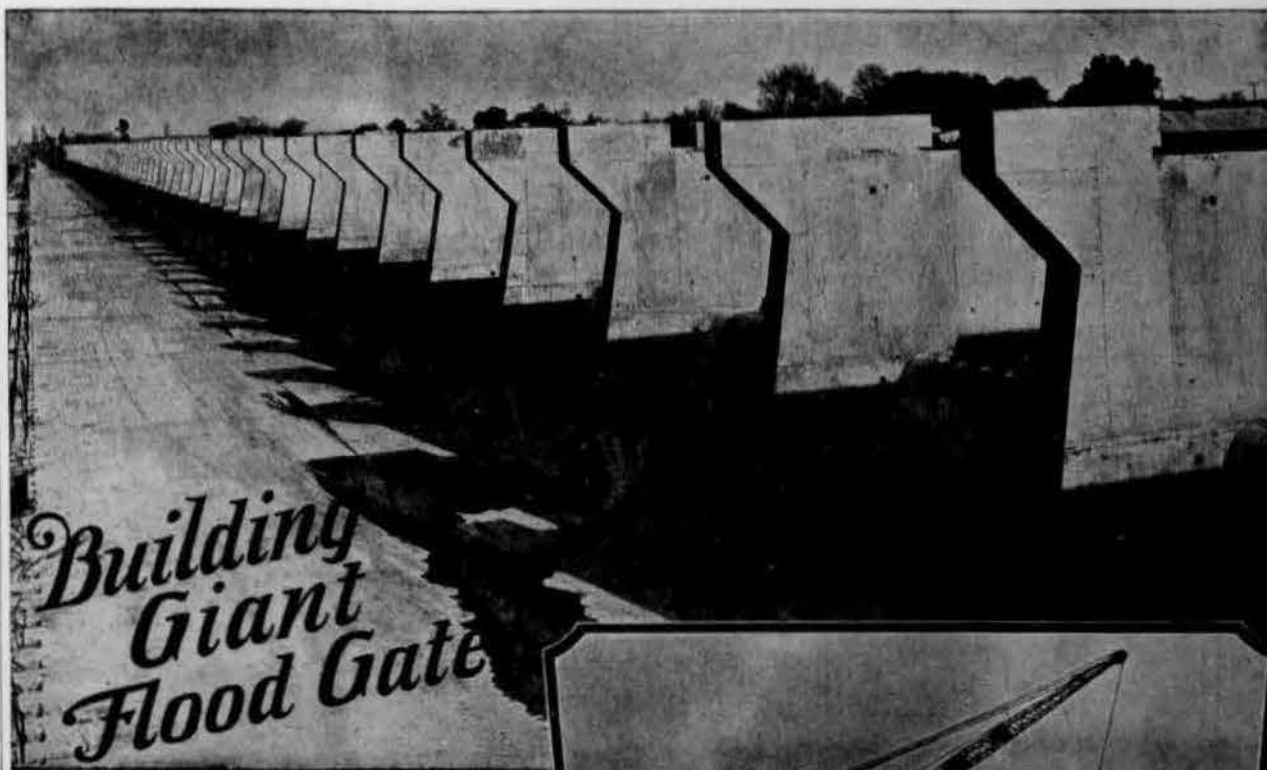
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## THE HOBO AND THE ENGINEER

An engineer with a wistful eye,  
In his office emitted an occasional sigh,  
Brought on by the blue of the atmosphere,  
And the dust and the crashing of pinion on gear;  
Said he, and his mind was o'er-wrought with despair,  
"Ah, to be free from all worry and care,  
To follow the breeze o'er the road never-ending,  
To sail southern seas with their languid waves blending,  
To roam forest paths in the cool of the day,  
And fish in the pools where the speckled trout play,  
To sleep on the plains with the stars overhead,—  
And a mountain-top cave for a tomb when I'm dead."  
An aged Hobo with a troubled frown,  
By glowing camp-fire was seated down,  
The twilight, ghost-like, had spread its pall,  
Accompanied by the chill of Fall,  
And in the Hobo's lonely mind,  
Which Duty's cords could never bind,  
Remorse rode heavily, and dimmed his eye,  
And caused him there to sit and sigh;  
For what had he to show from Life?  
No home, no love, no child, no wife,  
No labors o'er, no battles won,  
And life now fading with the sun.  
So go we all; a smile or tear,  
To light up life or make it drear;  
And all, in worry, long for that  
Which they have not, and wish for what  
Is just beyond the beckoning bend,—  
So hearts break down and cannot mend.  
Yet who can say the way to live,  
Who knows the paths on which to thrive,  
What mighty power could give the truth,  
To shout to every wondering youth,  
What life is best, what hot path sears,—  
The Hobo's or the Engineer's?

"The" Senior, January, 1931.



**T**WENTY-EIGHT miles upstream from New Orleans a great flood gate known as the Bonnet Carre spillway is being completed. In times of high water this concrete dam on the east bank of the Mississippi will tap the flood before it reaches the city, diverting the dangerous excess into Lake Pontchartrain.

The Bonnet Carre spillway consists of a concrete dam and a pier-and-weir section about 7700 feet long. The weir sections, which are twenty feet wide between the piers, have timber needles on the crests at two levels—elevations 16' and 18'. A traveling crane, on a bridge spanning the piers, removes the timber needles for discharge.

N. E. C. equipment played an important part in the construction set-up. Two Koehring Cranes handled aggregate at the material bins and a third Koehring placed the concrete with an Insley bucket. Two large Smith mixers mixed the 127,000 cu. yds. of concrete used on the project.

Wherever you find construction work in progress, you find N. E. C. equipment!



"Concrete—Its Manufacture and Use," a complete treatise and handbook on present and future methods of preparing and handling portland cement concrete, will be gladly sent on request to engineering students, faculty members and others interested.

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## COSMO CLUB

(Continued from Page 1, Col. 1)  
displayed by Americans.

Mr. Scheifley gave an especially interesting description of his visit to Heidelberg and showed pictures of scenes in and about the little university town of Germany. The duels which were such an institution in the student life of Heidelberg before the war are now prohibited by law and although they are still very common the duels are carried on now in secluded spots outside the reach of authorities.

Probably the feature of Mr. Scheifley's European visit was his attendance at the Passion Play of Oberammergau. He described the manner in which the play was produced and compared it to the version presented by the Freiburg players in their tour of the United States this season. The village of Oberammergau has produced the Passion Play every ten years to show their devotion to Christ since they were delivered from a terrible plague almost three hundred years ago. In 1934 an extra performance of the play will be given in celebration of the three hundredth anniversary of the inauguration of the custom. Mr. Scheifley described the general stage setting for the play and the presentation of the Old Testament in tableaux since it was a prediction of what was to happen in the New Testament, which was acted. Mr. Scheifley had with him a booklet of remarkable photographs in color of scenes and actors in the play, which he passed for inspection by his audience. Upon concluding his talk, Mr. Scheifley was roundly applauded and received thanks from President Chin after which Mrs. Earle served cider and doughnuts as the last feature of an extremely successful evening.

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RUN DRY  
DURING LECTURES  
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CARRIES DOUBLE  
THE INK

DR. HOBBS, '07, NAMED  
LECTURER AT MICHIGAN

## Is Well Known Writer

Dr. William Herbert Hobbs, class of '33, a professor of geology and director of the geological laboratory at the University of Michigan, recently received the honor of being chosen Henry Russell Lecturer for the year 1930-31. This lectureship was established in 1925 and bears the name of the late Henry Russell of Detroit, who bequeathed an endowment fund to the university. The lecturer is chosen for scholarly achievement, the selection being made by the council of the Research Club of the University of Michigan. It is the first time that a member of the geology department has been appointed to this lectureship.

Dr. Hobbs is a native of Worcester and graduated from the Institute in 1883. His graduate studies were carried out at Johns Hopkins University where he received his doctor's degree in 1888. He began his teaching career at the University of Wisconsin the following year and ultimately became professor of mineralogy and petrology. In 1906 he was appointed professor of geology, director of the geological laboratory and the geological museum at the University of Michigan and has been connected with the University since that time. At the commencement exercises in 1929 his Alma Mater bestowed upon him the honorary degree of Doctor of Engineering.

Dr. Hobbs is well known as a writer and has published several books the last of which, "Exploring About the North Pole of the Winds" was completed last year. In his pursuit of information about earthquakes, glaciers, formation of mountains, and the origin of winds, he has traveled widely. In 1921-1922 he made a world tour to study the growth of mountains. In 1926, 1927 and 1928 he led expeditions from the University to Greenland for the purpose of studying meteorological conditions in order to cast light on the general question of the origin of storms in the North Atlantic region. A base was established in Greenland and meteorological observations were recorded throughout the long Arctic winter. Valuable information was obtained and Dr. Hobbs is about to publish it in a report of the expeditions. The last of these geological expeditions also turned out to be a rescue party; for it will be remembered that it was Dr. Hobbs and his party who rescued the Rockford flyers, Hassel and Cramer, when they were forced to land in Greenland in the attempt to cross the Atlantic by the Greenland-Iceland route. His work is considered so important that in June, 1930, the Carnegie Institution of Washington granted him five thousand dollars to continue in Greenland his aerological investigations which have thus far proven so fruitful.

## ASSEMBLY

(Continued from Page 1, Col. 5)

parallel the steamer lanes for long voyages and will be fed to some extent by planes. These ships will not run in competition to the steamers, but as a supplement to other means of transportation. There will be no competition between the heavier and lighter than air ships because the planes are bound to be used only in short range work whereas the Zeppelin will take care of the rapid transportation long distance service.

The main difficulties at the present time are in the terminal facilities and it is along this line that the navy is working to a great extent at present. This country has shown the greatest advancement of any country in the research of landing, handling and anchoring of these monsters of the air. On this side of the ocean is a tendency toward lower masts with runs for the

tail of the ships. Also it is felt that mechanical handling is more satisfactory. The navy has a vehicle with caterpillar tread which works well and they are planning on building one to run on rails.

Lieut. Comdr. Rosendahl, U. S. N., told of his trip around the world in twenty-one days aboard the Graf Zeppelin. The thing which seemed to interest him most was the "ease of accomplishment." They were able to keep their schedule most of the trip. The motion of the ship was in most cases unnoticeable. The course was chosen to take advantage of the winds. The roughest traveling they found was over this country. It took three days to cross the Pacific ocean. The ship proved its value in crossing a country like Siberia.

After showing three reels of film on the construction of the Los Angeles and a few shots from the experimenting being done by our navy along the line of aeroplane handling from an airship and using an aeroplane carrier as a floating terminal for airships he closed with a few remarks pertaining to the needs of the airship to save fuel and lifting gas.

## A CHALLENGE

Manager "Shark" Ekberg, product of the local sand lots, of the undefeated (yes—they have played a game) Junior Civil Basketball team has issued a challenge to any or all other departmental teams for a fracas to take place in the gym at any time available.

The "Civil Stars" are coached by the famous "Dinty" Leach, a product of the Chair town football team and is captained by "Terrible Jenny" Seelert from Manchester's underworld. Other members of the team are "Stretch" Johnson, "Scab" Deslauriers, "Sitting" Bull, "Puffed" Rice the Younger,

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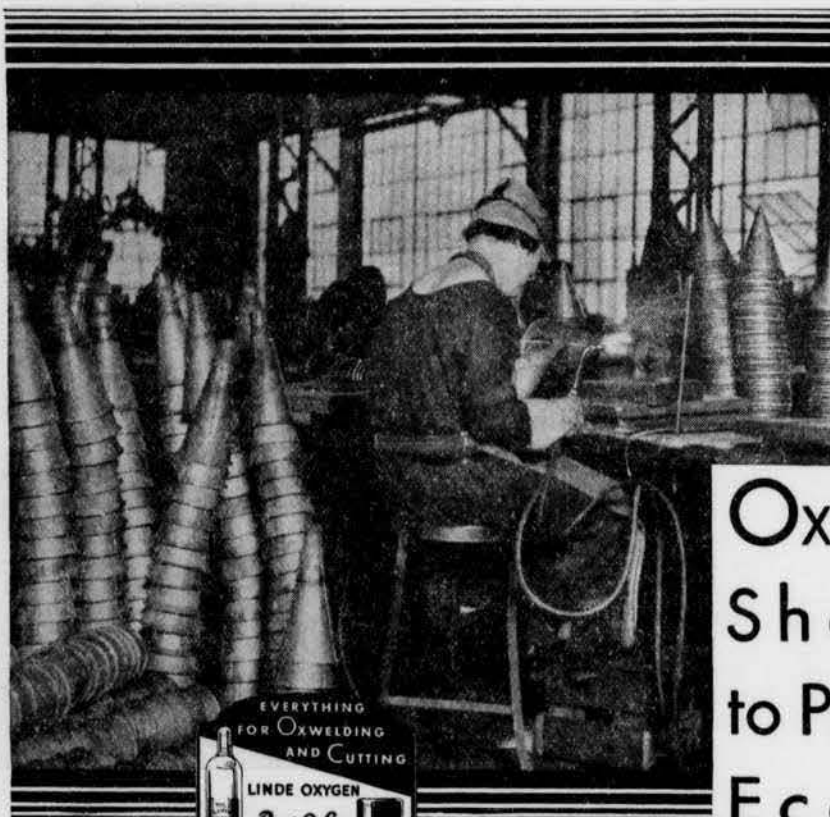
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